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American Association of
State Highway and
Transportation Officials

James C. Codell III, President
Secretary
Kentucky Transportation Cabinet

John Horsley
Executive Director

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NOV 26 2002
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

November 26.2002

Office ofthc Secretary
Federal Communications Commission
445 Twelfth Street, S.W..Room TW-A325
Washington. D.C. 20554

RE: WT Docket No.02-285

Dear Sir or Madam

Enclosed arc an original and nine copies of **AASHTO's** comments in thc matter of WT Docket No. 02-285, *Amendment of Sections 90.20 and* YO.*175 of the Commission's* ***Rules for Frequency*** *Coordination of Public Safety* ***Frequencies*** in ***the Private Land Mobile Radio Below*** *470 mHz.*

Thank vou for your consideration of AASHTO's position on thisimportant matter

Yours truly,

John Horsley
Executive Director

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Sections 90.20 aid 90.175 of the	)	
Commission's Rules for Frequency Coordination	)	WT Docket No. 02-285
Of Puhlic Safety Frequencies in the Private Land	)	RM-10077
Mohilc Radio Below 470 MHz	)	

NOTICE; OF PROPOSED RULEMAKING

Comments *of* the
American Association *of* State Highway and Transportation Officials
Special Committee on Wireless Technology

Richard Shcldrew,
Chairman

Before the

Federal Communications Commission

Washington, D.C. 20554

In the Matter of	)	
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Amendment of Sections 90.20 and 90.175 of the	)	WT **Docket** No. 02-285
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Of Public Safety Frequencies in the Private Land	)	
Mohilc Radio Bclow 470 MHz	)	

To: Chief, Wireless Telecommunications **Bureau**

COMMENTS OF
THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS

Background Information

The American Association of State **Highway** and Transportation Officials(AASHTO) respectfully submits these Comments in the above-captioned Notice of Proposed Rulemaking.

AASHTO is the national association of the **state departments** of highways **and** transportation in the 50 states. the District **of** Columbia, and Puerto Rico. Affiliate and Associate members include City, County and other transportation authorities. Its scope includes all five principal transportation modes, and its major purpose is to foster the development, operation and maintenance of an integrated national transportation system

AASHTO, through its Special Committee on Wireless Technology (formerly Special Committee on Communications) has been active in matters related to wireless telecommunications system design, construction and operation lor more than 40 year. AASHTO is a member of the Intelligent Transportation Society of America with membership in many ITSA committees including llie telecommunications committee.

COMMENTS

Introduction of Competitive Frequency Coordination

The Association of Public-Safety Communications Officials-International, Inc. (APCO) petitioned llic Commission requesting that the service spccilic frequencies listed under Part 90.20 of the Commission's rules be subject to frequency coordination hy APCO. APCO is currently eligible to furnish Ircquency coordination for frequencies, which were assigned to the Police Radio Service and shares coordination responsibilities with AASHTO, the International Municipal Signal Association/International Association of Fire Chiefs, (IMSA/IAFC), and llic Forestry Conservation Communications Associalion, (FCCA), for llic Puhlic Safety Pool frequencies.

APCO correctly acknowledges that many systems operating on lrequencies below 470 MHz consist of frequencies allocated to more than one radio service. APCO hy that comment acknowledges that the current policy of representative frequency coordinators has not prcvcnted non-highway agencies lrom obtaining licenses on these lrcquencies.

The Commission originally allocated frequencies for the Public Safety Radio Services by block allocation based upon the service provided by each unique system operator. This action was based upon the principle that each user group had unique needs and operational functions. The first frequency advisory groups were made up of representatives of the users lor wliicli they furnished recommendations.

The "interservice sharing" of frequeiicics between the **users** of different radio services was allowed to ensure that all applicants could receive recommendations for the **"most** appropriate" frequencies in cases where all frequencies in the applicant's area **of** operation and radio service *are* encumbered. In October 1997 Ilic Commission deleted FCC Rule part 90.176 which defined the interservice sharing process. The Puhlic Safety Communications Council, (PSCC), including APCO, recognized thal some mechanism was needed to serve those entities that rcquirr frequencies from more than one radio scrvicc. Tlic PSCC members continue to submit requests for frequencies coordinated exclusively hy other PSCC members to than for rcvicw and approval. **AASHTO** has no record of complaints from othcr PSCC members concerning this process.

APCO has *changed* its *name many limes since 1935, when* it **was** *founded* as "Association of Police Communications Officers Inc." APCO states that a qualified broadly representative public safety Ircquency coordinalor can address the differences between various public safety services. The record in this area shows that APCO lias different standards when considering recommendations for frequencies in the Public Safety Pool which *arc* licensed hy police agencies than those licensed tonon-police agencies. The granting oi APCO's petition has Ilic potential to unduly burden the Commission hy allowing APCO to recommend additional frequencies whose uscrs are iiot represented by APCO. The Commission. through Report and Older 83-737, not only required that coordinators represent the users lor which they furnish service, coordinators are to provide service on a non-discriminatory basis. APCO, which promotes itself as representing all Puhlic Saiety Organizations, has a record of applying different standards to different classes of users. APCO was the exclusive coordinator for both the Local Government Radio and Police Radio Services from 1986 until October 1997. **A** review of *the* FCC license database shows that there are far mnrc uscrs per frequency in the Local Government Radio Service than the Police Radio Service.

In addition *to* representing stile highway and transportation agencies, associate membership in **AASHTO** is offered **to** city, **county** and other highway and transportation authorities. In many states there are no couiity **highway** agencies. The state highway or transportation department maintains all highways in those states. In those states with county highway departments, there is a close working relationship

between the county departments and the state liigliway department. AASHTO is familiar with the operations of all transportation organizations and reprcscnts non-state liigliway aid transportation agencies in the licensing of their wireless telecommunications systems.

A safe aid efficient surface transportation system is widely recognized as an integral part of the nation's homeland security. The management of the system is dependant upon reliable wireless telecommunications networks. The coordination of the network frequencies should remain with knowledgeable transportation personnel.

Other coordinators inay posses the technical knowledge and expertise to manage radio frequency spectrum. However they do not have the in depth knowledge of the uniqueness of transportation agency operations required to make most appropriate recommendations.

AASHTO has been assigned the responsibility of administering die 47 MHz National Geographic Allocation Plan hy the FCC. This plan governs llic use of 20 channels in die frequency band between 47.02 and 47.40 MHz. These frequencies are restricted for use hy stale liigliway and transportation departments. APCO has on more than one occasion submitted requests to AASHTO for the assignment of frequencies from the plan for non-state liigliway agency use. In AASHTO's opinion. Uiis indicates the lack of knowledge of the plan, and is evidence that APCO does iiot represent highway agencies.

The Commission acknowledged that representativeness remains vital Cor the integrity of the puhlic safety services. In PR docket 92-235 2"" R & O, Ilie Commission stated, "As we indicated above, the integrity of the puhlic safety services must be maintained without fail ... Also. preserving the jurisdiction of the individual coordinators over current spectrum. while expanding access to the Local Government frequencies, will help ensure consistency with local, regional aid state puhlic safety communications plans."

In consolidating the Industrial/Business Radio Services the Commission originally placed all frequencies in the Pool and allowed any Industrial/Business Radio Scrvicc coordinator to recommend those frequencies. In addressing petitions for reconsideration of that decision filed by the American Petroleum Institute, the Association of American Railroads, and the Utilities Telecommunications Council. renamed United Telecommunications Council, the Commission corrected the problems resulting from that decision hy requiring frequencies wliicli had been coordinated exclusively hy the aforementioned coordinators prior to October 1997 must be coordinated hy them. The justitication for the Commission's action for the Industrial/Business Pool is even more important lor the Public Safety Radio Service, whose users are more directly involved in situations related to safety of life and property.

DISCUSSION

The justifications listed hy APCO lor opening the frequency hands helow 470 MHz to competitive coordination include the electronic notification of frequency recommendations which has been in place lor more than three years. The implementation of the Universal Licensing System has required the lrcquency coordinators to make modifications to existing automated frequency coordiiiatioii systems and data transfer processes. These changes have at least temporarily reduced the efficiency of the data exchange process between coordinators. The current coordination systcin is no mnrc integrated now than in 1998.

In fact the process currently utilized and agreed to hy the members of the Puhlic Safety Communications Council (PSCC) is to lax the complete FCC application form 601 for each notification and interservice sharing request. This process is due to the inability of the electronic transfer process to function in a completely reliable manner. Electronic notification is utilized hut is not always accurate. APCO recently began submitting the applications as Adobe Acrobat PDF file attachments wliicli are emailed to AASHTO. Until we see the reliable electronic transfer of all data needed in order for coordinators to accurately analyze the data for all applications, it is premature to even consider the changes in die curreiit rules suggested hy APCO.

Competition in the former Local Government Radio Service has been successful due to the fact that most of the existing users were general radio use agencies. Many of the current users of the frequency pools that are currently under consideration tor competition have unique safety of life uses. To allow a coordinator who currently lias exclusive coordinatioii rights to nearly 46percent (455 of approximately 1000) of the total Puhlic Salety Irequeiicy Pool will not enhance Uiese existing critical operations. In fact to grant the coordinator with control of the greatest number of frequencies access to the remainder of the frequency pool will not promote competition, hut, will further any monopolistic goals of APCO.

As noted previously, there is little similarity between the coordination of frequencies which were allocated in blocks to scrvicc spccilic users aid the 700 MHz and 800 MHz frequency bands. These bands *arc* primarily managed by Regional Pliuiniiig Committees with the coordinators' role primarily administrative. The frequencies in the 800 MHz frequency band, which arc not managed by regional Planning Committees, are assigned under strict technical limitations listed in the FCC Rules. The frequeiicics in the bands helow 512 MHz are available on a shared basis only. It is the knowledge of the current service-specific coordiiialors which enables them to manage this spectrum in the most appropriate manner. Tlie congested frequency bands k l o w 470 MHz are heavily used hy licensees needing representation hy a coordinator who is familiar with their operations.

Within the transportation sector, new applications iue developing that will require extensive knowledge of both the applications and the operations of potential users. This is likely true of other services as well. The largest innovation in transportation is the future use of the 5.850 to 5.925 GHz Ircquciicy hand for Dedicated Short Range Communications (DSRC). Knowledge of all aspects of the technical and operating parameters associated with these systems is a requirement for the frequency coordinator lor Uiis band. AASHTO is the only frequency coordinator to demonstrate interest, in the form of participation, in the DSRC writing group activities. This example is an indication of the ability of each Ircquciicy coordinator to fully participate in sharing the coordination responsibilities needed to ensure continued effective use of the public safety spectrum.

The willingness to wnrk on future issues is a key aspect of frequency coordination. Each coordinator is looking to the future, hut is looking only at their set of users. To ensure the future viability ol llic spectrum assigned for public safety, the information each coordinator provides is critical to developing sound policies aid guidelines. One could argue Uiat the new applications are quite different from current uses of tlic spectrum. This does not consider thai llic users will be the same and the organization Uiat performs the frequency coordination must have an in-depth knowledge of the users' applications.

AASHTO is not convinced that competition can be successful for the remaining Puhlic Safety Pool frequencies k l o w 512 MHz. As noted previously, there arc serious prohlems with the electronic exchange of daw between frequency cvordinators. The Commission should require a certified statement from all Puhlic Safety Coordinators that the electronic notification process is 100 percent operational before any action is taken willi respect in this notice.

Tlic fees charged hy each coordinator arc representative of their business expenses and *are* inversely proportional to the volume of coordinations perlormed. The Universal Licensing System (ULS) along with tlic multi page application form have created an increased demand on coordinators and the associated lrcqucncy coordination database service providers. This has resulted in the need for additional resources aid increased expenses for the coordinators. The interactive functions of the ULS are easily accomplished. There have been numerous problems with batch filings of applications. The ULS in its current form has not reduced the labor. time, or financial cost to coordinators

The Commission initially certified llic existing coordinators, based upon their ability to accurately reprcsrnt their served applicants. Since most spectrum helow 512 MHz is congested, it is of tlie utmost importance that the existing users are. as groups, represented hy a coordinator who has the knowledge of how these systems are used. Tlic process of "interservice sharing" is allowed by the Commission and has enabled users of differcui radio services to obtain lightly used spectrum from Radio Services for which the applicant was not eligible. This process has been successful, as evidenced hy the number of systems that are made up of frequencies from more than one radio service. While the interservice process docs add

some time to the licensing process, that tune is almost always **less** than the time **die** ULS takes to process an application. Additional expense is justified hy the applicant's benefit in receiving a frequency, which does not result in harmful interference and the associated delay and **expense** to both the **applicant and** the Commission in resolving a post-licensing conflict.

APCO was founded in 1935 as the Association of Police Communications Officers Inc. APCO **is** widely recognized for its support iuid representation of Police agencies. The International Municipal Signal Association and International Association of Fire **Chiefs** represent the Fire, Special Emergency and Emergency Medical Radio Service licensees. Tlie Forestry Conservation Communications Association represents licensees involved in Foresuy Conservation activities. **All** Public **Salety** Frequency Coordinators provide service for applicants who are eligible for frequencies previously allocated **to** the Local Government **Radio** Service. The eligibility for the Local **Government** Radio Service was **not** as restrictive as llic other Public Safety Radio Services. Any governmental entity was eligible to operalc systems utilizing Local Government Radio Service frequencies. The current frequency coordinators represent their members well, **hut** *arc* not proficient in the intricacies of tlie other Public Safety operations. No coordinator possesses the level of detailed knowledge of the otlicr users operations to qualify them for coordinating that spectrum. The success of spectrum sharing hetwccn existing systems is **due** to the requirement of concurrence Irom the "home" coordinator. This ensures that the existing users *are* considered. **To** remove this practice with **die** hope of improved service **and** lower cost **to** the applicant is not justified in our opinion.

As previously stated AASHTO feels that the curreiit system is **working** well. There is no need **to** certify AASHTO. APCO or FCCA to coordinate SERS frequencies as IMSA adequately represenls these users.

Tlic differences in licensing rules and systems operating parameters for systems operating below 512 MHz and the 700 and 800 MHz frequency bands **include** the shared nature of frequency assignments for frequencies **k l o w** 512 MHz. There are no Regional Planning Committees for the frequency bands

below 512 MHz. Some jurisdictions share systems and frequencies while others do not. The unique technical characteristics associated with each frequency **hand** make the Ircquency re-use distances different. The system parameters lor each band must he analyzed. In the 700 and 800 MHz bands, the frequencies are assigned hy either Regional Planning Committees or tlic **systems** must conform *to* FCC Rules concerning distance between fixed stations or engineering studies.

Introducing competition in the congested Ircquency bands below 512 MHz can complicate the process. AASHTO and FCCA may be laced with a large number of requests **for** frequencies currently coordinated exclusively hy them from APCO. Currently, these requests ***we*** submitted only when there arc no assignable frequencies in the home coordinator's radio service frequency pool. If placed in the general Puhlic Satety Pool this requirement will not be in effect. **AASHTO** could be lorced **to** review large numbers of frivolous requests wliicli **would** have negative consequences for hoth AASHTO and applicants. The result **would** place AASHTO aid other at a competitive disadvantage.

Competition should **iiot** increase the numhcr of disputes or delay the implementation olnew systems. **APCO** along with its Local Advisors currently submit many ohjcctions directly **to** tlie Commission. This is in spite of the fact that **Ilie** FCC expects Coordinators to resolve disputes prior **to** submitting applications to the Commission.

AASHTO administers the Highway Maintenance 47 MHz National Geographic Allocation Plan. There are other similar plans for other Puhlic Safety Radio Services. Frequencies limited hy these plans are so noted hy an entry in the limitations column in the Frequency Table at FCC Rule **Part** 90.20 (3). The existence of these **plans aid Uic** unique users to which the plans apply is another reason that the representativeness of each Irequeiicy coordinator must continue to he the foremost condition. Tlir current system is **Ilic** best *method* wliicli can accomplish this.

Tlic current system of representative frequency coordinators **does** not promote or discourage spectrum warehousing. It is the applicant who determines how many frequencies arc applied for. There

are no loading requirements for the frequencies below 512 MHz. Until tlic Commission adopts mobile loading as a condition of licensing. warehousing can occur. The current Commission practice of requiring a statement within one year of licensing Uiat stations are constructed, on the air. and serving the mohilcs licensed may discourage unintentional warehousing of lrequencies by licensing without construction. An applicant's representative must sign a statement site by site and name the number of mobile stations being served.

The adoption of a Contour Overlap Analysis has the potential to improve frequency coordination. If this approach is to be required, the Commission must mandate that the Telecommunications Indusuy Association TSB-88 propagation modeling methodology be used hy all coordinators. Contour Overlap Analysis alone will not solve all problems, as there are cases where licensees are willing to share spectrum, even though the contour overlap analysis indicates that interference is likely. Like users can often share, although dissimilar uscrs do not. This is another justification tor maintaining representative frequency coordinators aid block spectrum allocations in the frequency bands k l o w S12 MHz.

The current limitations in the rules wcrc adopted due to specific operational and technical characteristics. Tlic issue of Contour Overlap Analysis is not related lo those limitations.

Notifications and Integrated Coordinator Database

The current practice of requiring concurrence from the representative frequency coordinator should be maintained. The Commissiou mandated the electronic notification of all actions by each coordinator. All coordinators attempt to comply with Uiis requirement. As noted earlier in these comments, there continue to be problems with this procedure. We often receive requests for application status reports from APCO. In many cases we have received electronic notification of applications from APCO lor the applicant in question, but they will be dillerent applications than the one APCO is inquiring about. It seems Uiat tlic electronic transfer transfers some files but not all files. The coordinators currently utilize three different database providers. It is premature for the Commission io consider the proposed

competition until all Puhlic Safety Frequency Coordinators certify thal the data transfer is 100 percent successful and accurate for every application processed.

The notification process is separate from state, local or regional plans. An on-line datahase containing all puhlic safety plans must be provided hy the Commission. This can be located at the Puhlic Salety FCC Web site.

We do not believe that APCO lias the capability to accommodate this function. This position is based upon llic difficulty we experience in receiving accurate and complete application records electronically from APCO.

Retention of Exclusive Frequency Coordination

One justification lor maintaining the existing system of representative frequency coordinators is that each currently certified coordinator was chosen after an exhaustive rulemaking proceeding, PR Docket Xi-737. The systems currently operated were implemented, reflecting the input o l *the* existing coordinators. These systems afford essentially reliable communications Tor the users. The technological challenges associated with the need lor rapid electronic cxcliangc of complete and accurate data remain iinsolvcd. Even i rthe Commission dismisses the merit of AASHTO's position, it must recognize Uiat the negative consequences of allowing licenses to be granted without the benefit of the review of all data by all affected parties is too great to risk.

AASHTO has utilized vertical slacking in assigning spectrum to like entities who often work together iii responding to emergency activities as well as highway snow removal aid ice control. These users must he protected from large system users, who may not consider the existing *systems'* operations

APCO currently has exclusive coordination of ncarly half of the Puhlic Safety Radio Service frequencies helow 512 MHz. To allow unfcttcrcd access to the remaining spectrum to the largest

coordinator will not promote competition. It could, however, result in increased expense to other coordinators, who could he lorced to commit resources Lo protest recommendations made hy **APCO.**

Conclusion

APCO is not representative of the nation's highway and transportation agencies. The Commission correctly restricted frequencies for quasi-safety operations in the Industrial/Business Radio Service to the qualified representative frequency coordinators. The justitication lor the Commission's action in that matter included legitimate safety issues. That justification is even more important to tlie agencies charged with the development, operation and maintenance of an integrated national transportation system

Respectfully submitted,
American Association of State Highway and Transportation Officials, **Special** Committee on Wireless Technology

By:_____
John Horsley, Executive Director
American Associalion of State Highway **and** Transportation Officials